AMENDMENT TO THE CLAIMS

1. (Currently Amended) An apparatus for controlling a level of a decision threshold voltage to an optical receiver, said optical receiver converting an input optical signal into an electrical signal, said apparatus comprising:

a voltage detector for branching off part of an output signal from said optical receiver and detecting a corresponding voltage;

a differential comparator for comparing said voltage detected by said voltage detector with a reference voltage inputted thereto and outputting ~~the~~ a resulting differential voltage;

a low pass filter for filtering said resulting differential voltage from said differential comparator at a predetermined low frequency band and supplying the resulting voltage as said threshold voltage to said optical receiver; and

a voltage controller for controlling said reference voltage to said differential comparator on the basis of a differential voltage between said threshold voltage from said low pass filter and a predetermined voltage corresponding to a predetermined minimum bit error rate;

whereby said decision threshold voltage to said optical receiver is controlled such that it corresponds to said minimum bit error rate.

2. (Original) The apparatus as set forth in claim 1, wherein said voltage detector includes a second low pass filter, said second low pass filter branching off part of the output signal from said optical receiver and filtering the resulting signal at a predetermined low frequency band.

3. (Original) The apparatus as set forth in claim 1, wherein said voltage controller is adapted to receive a photoelectrically converted input voltage from said optical receiver, perform its control operation if a level of the input voltage is higher than or equal to a predetermined signal input determination voltage level, and stop it if the input voltage level is lower than the predetermined signal input determination voltage level.